

**PATENT APPLICATION  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re application of: James Vickers**  
Divisional of Ser. No. 10/294,434

**For: AVALANCHE PHOTODIODE FOR PHOTON COUNTING APPLICATIONS AND  
METHOD THEREOF**

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§ 1.97 and 1.98**

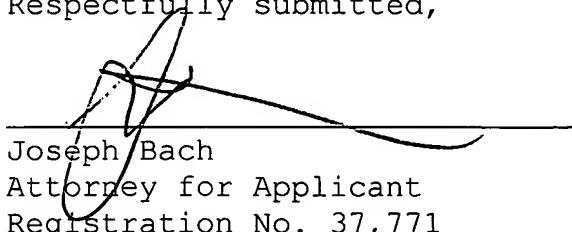
Honorable Commissioner of  
Patents and Trademarks  
Alexandria, VA 22313

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached form PTO-1449 which the Examiner may deem relevant to patentability of the claims of the application being filed concurrently herewith. All listed documents have been presented in the parent case (Ser. No. 10/294,434) and, accordingly, no copies of the listed documents are submitted herewith. No certification under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

  
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U.S. Department of Commerce, Patent and Trademark Office				Docket No.		Serial No.	
<b>AVALANCHE PHOTODIODE FOR PHOTON COUNTING APPLICATIONS AND METHOD THEREOF</b>				OPTONICS 05D1		Div. of 10/294,434	
LIST OF RELEVANT ART CITED BY APPLICANT				Applicant: VICKERS, James			
(Use several sheets if necessary)				Filing Date		Group	

## U.S. Patent Documents

* Examiner Initial		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	6,342,701	01/29/02	Kash	250	458.1	07/08/99
	AB	6,218,657	04/17/01	Bethune et al.	250	214	10/15/98

## Foreign Patent Documents

## Translation

		Document Number	Date	Country	Class	Subclass	Yes	No
	AC	JP-2001-237453	08/2001	Japan				

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AD	McIntyre, R. J., Multiplication Noise in Uniform Avalanche Diodes, IEEE Transaction on Electron Devices, ED 13, 164-168 (1966);
AE	McIntyre R. J., A New Look at Impact ionization – Part I: A Theory of Gain, Noise, Breakdown Probability, and Frequency Response, IEEE Transaction on Electron Devices, 46, 1623-1631 (1999)
AF	Yuan, P., Anselm, K. A., Hu, C., Nie, H., Lenox, C., Holmes, A. L., Streetman, B. G., Campbell, J. C., and McIntyre, R. J., A New Look at Impact Ionization – Part II: Gain and Noise in Short Avalanche Photodiodes, IEEE Transactions on Electron Devices, 46, 1632-1639 (1999).
AG	Campbell, J.C., Nie H., Lenox, C., Kinsey, g., Yuan, P., Holmes, A. L., Jr. and Streetman, B. G., High Speed Resonant-Cavity InGaAs/InAlAs Avalanche Photodiodes, IEEE Journal of High Speed Electronics and Systems 10, 327-337 (2000).
AH	); Campbell, J. C., Chandrasekhar, S., Tsang, W. T., Qua, G. J., and Johnson, B. C., Multiplication Noise of Wide-Bandwidth InP/InGaAsP/InGaAs Avalanche Photodiodes, Journal of Lightwave technology 7, 473-477, (1989)
AI	Kinsey, G. S., Hansing, C. C., Holmes, A. L. Jr., Streetman, B. G., Campbell, J. C., and Dentai, A. G., Waveguide $In_{0.52}Ga_{0.47}As-In_{0.52}Al_{0.48}As$ Avalanche Photodiode, IEEE Photonics Technology Letters 12, 416-418 (2000)
AJ	Kinsey, G. S., Campbell, J. C., and Dentai, A. G., Waveguide Avalanche Photodiode Operating at 1.55m with a gain-Bandwidth Product of 320 GHz, IEEE Photonics Technology Letters 13, 842-844 (2001)
AK	C. Lenox, H. Nie, P. Yuan, G. Kinsey, A. L. Holmes, Jr., B.G. Streetman, J.C.Campbell, Resonant-Cavity InGaAs-InAlAs Avalanche Photodiodes with Gain-Bandwidth Product of 290 GHz, IEEE Photonics Technology Letters, Vol 11, No. 9 (1999)
AL	B. Huttner, J. Brendel, Photon-Counting Techniques for Fiber Measurements, Lightwave, (2000)
AM	P. Yuan, S. Wang, X. Sun, X.G. Zheng, A.L.Holmes, Jr., J.C.Campbell, Avalanche Photodiodes with an Impact-Ionization-Engineered Multiplication Region, IEEE Photonics Technology Letters, Vol 12, No. 10 (2000)
AN	K. Junsang, Y. Yamamoto, Noise-Free Avalanche Multiplication in Si Solid State Photomultipliers, Appl. Phys. Lett. 70 (21) (1997)
AO	Avalanche Photodiodes: A User's Guide, <a href="http://optoelectronics.perkinelmer.com/library/papers/tp5.asp">http://optoelectronics.perkinelmer.com/library/papers/tp5.asp</a>
AP	A. Rochas, P.A. Popovic, A Geiger Mode Avalanche Photodiode,
AQ	S. Vasile, P. Gothoskar, D.Sdrulla, R. Farrell, Photon Detection with High Gain Avalanche Photodiode Arrays, IEEE Trans. Nucl. Sci. 45, 720 (1998)
AR	T. Nesheim, Single photon detection using avalanche photodiode, a master thesis done in <u>Quantum Cryptography Project</u> at the <u>Department of Physical Electronics</u> , <a href="http://www.vad1.com/qcr/torbjoern/">http://www.vad1.com/qcr/torbjoern/</a> Chapter 3.

Examiner	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.